IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	HOHENSEE et al.	Examiner:	Park, C.
Serial No.:	09/490,772	Group Art Unit:	2622
Filed:	January 24, 2000	Docket No.	**BLD990043US1** (2003901-0511-B-DWL)
Title:	METHOD AND APPARATUS FOR MANAGING COMPLEX PRESENTATION OBJECTS USING GLOBALLY-UNIQUE IDENTIFIERS		

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence and the papers, as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop APPEAL, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 29, 2005.

By:_____
David W. Lynch

APPEAL BRIEF

MAIL STOP APPEAL
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal Brief submitted pursuant to 37 C.F.R. § 41.37 for the above-referenced patent application. Please charge Deposit Account No. 50-0563 (BLD990043US1) in the amount of $500.00 for this brief in support of appeal as indicated in 37 C.F.R. § 41.20(b)(2).

I. Real Party in Interest

The real party in interest is International Business Machines Corporation, having a place of business at New Orchard Road, Armonk, New York 10504. This application is assigned to International Business Machines Corporation.

II. Related Appeals and Interferences

Appellants are unaware of any related appeals, interferences or judicial proceedings.

III.   Status of Claims

Claims 1-18 and 44-68 were rejected. Claims 1-18 and 44-68 are presented for appeal and may be found in the attached Appendix of Appealed Claims in their present form.

IV.   Status of Amendments

An amendment providing drawing changes and minor modifications to the claims as suggested in the Final Office Action accompanies this appeal. No further amendments to the claims were made subsequent to the final rejection of Appellants' application.

V.   Summary of Invention

The present invention includes embodiments of a method and apparatus for managing complex presentation objects using globally unique identifiers.

Independent claims 1 recites a method for enabling re-use of presentation objects by a printing system. The method includes identifying an object (page 25, lines 3-4; Fig. 7 – 740) in a print data stream (page 24, lines 15-16; Fig. 7; 710) for presentation by the printing system (page 15, lines 14-15; fig. 1 – 160) and generating at the printing system a globally unique identifier for assignment to the object (page 23, lines 3-4; Fig. 4 – 442).

Independent claim 13 recites a method for managing presentation objects for multiple use. The method includes downloading to a printer a presentation object (page 25, lines 3-4; Fig. 7 – 740) identified in a print data stream (page 24, lines 15-16; Fig. 7; 710), caching the presentation object in a cache of the printer (page 24, lines 17-18; Fig. 7; 722) when the presentation object is downloaded and capturing the presentation object in memory of the printer (page 25, lines 20-21; Fig. 8; 870) if a globally-unique identifier has been assigned to the presentation object.

Independent claim 44 recites a system for managing presentation objects for multiple use. The system includes a printer cache for caching a presentation object (page 25, lines 3-

4; Fig. 7 – 740) identified in a print data stream (page 24, lines 15-16; Fig. 7; 710) when downloaded and printer capture storage (page 25, lines 20-21; Fig. 8; 870) for capturing the presentation object if a globally-unique identifier has been assigned to the presentation object.

Independent claim 50 recites a system for processing referenced objects. The system includes a print server (page 24, lines 15-19; Fig. 7; 712) for searching (page 23, line 17 to page 24, line 13; Figs. 3-6) for a presentation object (page 25, lines 3-4; Fig. 7 – 740) referenced by a selected indicia in a print data stream (page 24, lines 15-16; Fig. 7; 710), the selected indicia being a name (page 21, line 12; Fig. 3 – 310; Fig. 4), a globally-unique identifier (page 21, lines 14-15; Fig. 3; 320; Fig. 5) or a globally-unique identifier and an object locator (page 21, lines 16-18; Fig. 3; 330; Fig. 6) and a control unit (page 15, lines 13-22; Fig. 1 – 130) for capturing the presentation object in persistent memory, wherein the control unit (page 15, lines 13-22; Fig. 1 – 130) determines if the presentation object is to be captured based upon whether the selected indicia includes a globally-unique identifier (page 21, lines 10-19; Fig. 3).

Independent claim 67 recites an article of manufacture comprising a program storage medium readable by a computer, the medium tangibly embodying one or more programs of instructions executable by the computer to perform a method for managing presentation objects for multiple use. The method includes downloading to a printer a presentation object (page 25, lines 3-4; Fig. 7 – 740) identified in a print data stream (page 24, lines 15-16; Fig. 7; 710), caching the presentation object in a cache of the printer (page 24, lines 17-18; Fig. 7; 722) when the presentation object is downloaded and capturing the presentation object in

memory of the printer (page 25, lines 20-21; Fig. 8; 870) if a globally-unique identifier has

been assigned to the presentation object.

VI.   Grounds of Rejection

Appellant has attempted to comply with new rule 37 C.F.R. § 41.37(c) by providing

the Office Action's grounds of rejection verbatim, followed by an argument section

corresponding thereto.

In paragraph 3 on page 2 of the Office Action, corrected drawings were required. In

paragraph 4 on page 2 of the Office Action, claims 1, 46 and 47 were objected to. The

attached amendment is being submitted to comply with the requirements of the above

rejections.

A.   On page 3 of the Office Action, claims 1-3 were rejected under 35

U.S.C. § 102(e) over Myers (Patent No. 6,665,672).

B.   On page 4 of the Office Action, claims 1, 2, 13-15, 44-49, 67 and 68

were rejected under 35 U.S.C. § 102(e) over Matsuyama (Patent No.

6,330,068).

C.   On page 6 of the Office Action, claims 50-52, 54, 55, 58 and 59 were

rejected under 35 U.S.C. § 102(e) over Irons (Patent No. 6,427,032).

D.   On page 8 of the Office Action, claims 4-12 were rejected under 35

U.S.C. 103(a) as being unpatentable over Myers in view of Herriot.

E.   On page 13 of the Office Action, claims 3-8 and 12 were rejected

under 35 U.S.C. 103(a) as being unpatentable over Matsuyama in view

of Herriot.

F.   On page 18 of the Office Action, claims 9 and 10 were rejected under

35 U.S.C. 103(a) as being unpatentable over Matsuyama and Herriot

in further view of Myers.

G.   On page 19 of the Office Action, claims 13-18, 44-49, 67 and 68 were

rejected under 35 U.S.C. 103(a) as being unpatentable over Irons in

view of McLachlan.

H.   On page 22 of the Office Action, claims 53 was rejected under 35

U.S.C. 103(a) as being unpatentable over Irons in view of Matsuyama.

I.   On page 22 of the Office Action, claims 56 and 57 were rejected under

35 U.S.C. 103(a) as being unpatentable over Irons in view of

Matsuyama.

J.   On page 23 of the Office Action, claims 60-66 were rejected under 35

U.S.C. 103(a) as being unpatentable over Irons in view of Matsuyama.

VII.   Argument

**A.   CLAIMS 1-18, 44-49 AND 67-68 ARE PATENTABLE OVER MYERS
(U.S. PATENT NO. 6,665,672), MATSUYAMA (U.S. PATENT NO.
6,330,068), IRONS (U.S. PATENT NO. 6,427,032), HARRIOT (U.S.
PATENT NO. 6,134,583) AND MCLACHLAN (U.S. PATENT NO.
6,144,458), ALONE OR IN COMBINATION.**

Myers discloses a globally unique "transaction identifier" that is used to correlate a

set of transactions performed by independent nodes. The final Office Action states that a

"transaction" is interpreted to be the same as Appellant's "object." However, clearly a

"transaction" as used by Myers is different than an "object" in a print data stream as used by

Appellant.

According to Myers, a transaction accounting system supporting a system and/or

network containing two or more principals is disclosed, wherein principals are defined as

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users (programmatic or human) of the system and/or network. The principals are in communication with each other and thus are capable of requesting and performing "transactions and/or methods." Further, transactions between principals are recognized and an accounting record is generated after recognizing the transaction or method. Thus, in order to maintain the accounting process, Myers discloses the use of a transaction identifier.

However, this is clearly different than printing a page based upon a received print data stream, wherein the print data stream includes objects having a globally unique identifier.

Accordingly, Myers fails to disclose, teach or suggest identifying an object in a print data stream for presentation by a printing system. Myers also fails to disclose, teach or suggest generating at the printing system a globally unique identifier for assignment to the object.

Matsuyama fails to remedy the deficiencies of Myers. According to Matsuyama, an image is divisionally managed as square image tiles each having the predetermined number of pixels. Reference numeral 205 indicates a relationship between an image of the resolution 0 stored in the image file 201 and respective image tiles. Indices (X, Y) indicated on the image tiles are image tile IDs for discriminating between image tiles. An image tile cache file name 9004 is a name of the file to which the tile is cached.

An image file ID 9002 is an ID of an image file storing the tile. More particularly, an image tile ID is an ID of the tile in the image file. The image file ID only provides a link to the resource's location at the moment in time the image file ID is cited; if the resource moves the image file ID no longer applies.

In contrast to Matsuyama's image file ID or image tile ID, a globally unique identifier is a location independent identifier that can be used for identification of the resource, and to thus facilitate access to both metadata ("data about data") about it and to the resource itself. According to the present invention, objects are assigned unique identifiers called Object Identifiers (OIDs). According to the present invention, these OIDs are based on an ISO-administered global naming tree. Each user must have a node in this global naming tree. There are branches from the user's node that lead to division level or sublevel/child nodes and each node is assigned a number. Nodes assigned under a given node are administered by the parent node. Using such an OID to identify and reference the object guarantees object

integrity across server sessions and power cycles, i.e., once the OID is found, wherever it is found, it is guaranteed to be the right object.

Note that the OID is not the location of the object such as Matsuyama's image file ID provides. For example, the <User node> is fixed and defined by ISO, the <sublevel node> is fixed and defined by the User. Below there, the sublevel group controls node assignment. The <System Identifier Node> can be an identifier associated with a particular Server System like the CPU ID or an installation key. The <Generator's Node> can be assigned by the sublevel group. Thus, even though the method for generating OIDs may change, the term "globally-unique identifier" clear refers to a unique identifier that is platform-independent and does not restrict the location of the object nor indicate the location of the object.

Accordingly, Appellant's invention is patentable over the Myers and Matsuyama, alone or in combination.

Irons fails to remedy the deficiencies of Myers and Matsuyama. Irons merely describes assigning a globally unique identifier to each image of a scanned document and then linking the globally unique identifier to a database record of the scanned document to enable the scanned document to be easily retrieved.

However, Irons does not suggest identifying an object in a print data stream for presentation by the printing system and generating at the printing system a globally unique identifier for assignment to the object. Irons also does not suggest caching the presentation object in a cache of the printer when the presentation object is downloaded and capturing the presentation object in memory of the printer if a globally-unique identifier has been assigned to the presentation object.

Accordingly, Appellant's invention is patentable over Irons, Myers and Matsuyama, alone or in combination.

Herriot fails to remedy the deficiencies of Irons, Myers and Matsuyama. Herriot merely describes retrieving a data object and using a cache file that indexed by a cache table to reference the data object. The cache table includes a column for identifying an OID for the object. However, the column is set to null initially because no OID has been associated with a resource. If the object includes an OID, the previously assigned OID is entered into

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the cache table.

However, Herriot does not suggest identifying an object in a print data stream for presentation by the printing system and generating at the printing system a globally unique identifier for assignment to the object. Herriot also does not suggest caching the presentation object in a cache of the printer when the presentation object is downloaded and capturing the presentation object in memory of the printer if a globally unique identifier has been assigned to the presentation object.

Accordingly, Appellant's invention is patentable over Herriot, Irons, Myers and Matsuyama, alone or in combination.

McLachlan fails to remedy the deficiencies of Herriot, Irons, Myers and Matsuyama. McLachlan merely describes a printer having memory. However, McLachlan does not suggest identifying an object in a print data stream for presentation by the printing system and generating at the printing system a globally unique identifier for assignment to the object. McLachlan also does not suggest caching the presentation object in a cache of the printer when the presentation object is downloaded and capturing the presentation object in memory of the printer if a globally unique identifier has been assigned to the presentation object.

Accordingly, Appellant's invention is patentable over Herriot, Irons, Myers and Matsuyama, alone or in combination.

Accordingly, Applicants respectfully submit that claims 1-18, 44-49 and 67-68 are patentable over the cited references.

B.   **CLAIMS 50-66 ARE PATENTABLE OVER MYERS (U.S. PATENT NO. 6,665,672), MATSUYAMA (U.S. PATENT NO. 6,330,068), IRONS (U.S. PATENT NO. 6,427,032), HARRIOT (U.S. PATENT NO. 6,134,583) AND MCLACHLAN (U.S. PATENT NO. 6,144,458), ALONE OR IN COMBINATION.**

Independent claim 50 recites a print server for searching for a presentation object referenced by a selected indicia in a print data stream. The selected indicia may include a name, a globally unique identifier or a globally unique identifier and an object locator. A control unit captures the presentation object in persistent memory and determines if the presentation object is to be captured based upon whether the selected indicia includes a globally-unique identifier.

Myers, Matsuyama, Irons, Herriot and McLachlan all fail to suggest the limitations recited in independent claim 50.

As described above, Myers discloses a globally unique "transaction identifier" that is used to correlate a set of transactions performed by independent nodes. However, clearly a "transaction" as used by Myers is different than an "object" in a print data stream as used by Appellant. Moreover, Myers fails to suggest searching for a presentation object referenced by a selected indicia in a print data stream and capturing the object based upon whether the selected indicia includes a globally unique identifier.

Matsuyama fails to remedy the deficiencies of Myers. As described above, Matsuyama discloses an image being divisionally managed as square image tiles each having the predetermined number of pixels. Reference numeral 205 indicates a relationship between an image of the resolution 0 stored in the image file 201 and respective image tiles. Indices (X, Y) indicated on the image tiles are image tile IDs for discriminating between image tiles. An image tile cache file name 9004 is a name of the file to which the tile is cached.

An image file ID 9002 is an ID of an image file storing the tile. More particularly, an image tile ID is an ID of the tile in the image file. The image file ID only provides a link to the resource's location at the moment in time the image file ID is cited; if the resource moves the image file ID no longer applies.

However, Matsuyama also fails to mention searching for a presentation object referenced by a selected indicia in a print data stream and capturing the object based upon

whether the selected indicia includes a globally unique identifier.

Accordingly, Appellant's invention is patentable over the Myers and Matsuyama, alone or in combination.

Irons fails to remedy the deficiencies of Myers and Matsuyama. Irons merely describes assigning a globally unique identifier to each image of a scanned document and then linking the globally unique identifier to a database record of the scanned document to enable the scanned document to be easily retrieved.

However, Irons does not suggest searching for a presentation object referenced by a selected indicia in a print data stream and capturing the object based upon whether the selected indicia includes a globally unique identifier. Accordingly, Appellant's invention is patentable over Irons, Myers and Matsuyama, alone or in combination.

Herriot fails to remedy the deficiencies of Irons, Myers and Matsuyama. Herriot merely describes retrieving a data object and using a cache file that indexed by a cache table to reference the data object. The cache table includes a column for identifying an OID for the object. However, the column is set to null initially because no OID has been associated with a resource. If the object includes an OID, the previously assigned OID is entered into the cache table.

However, Herriot does not suggest searching for a presentation object referenced by a selected indicia in a print data stream and capturing the object based upon whether the selected indicia includes a globally unique identifier.

Accordingly, Appellant's invention is patentable over Herriot, Irons, Myers and Matsuyama, alone or in combination.

McLachlan fails to remedy the deficiencies of Herriot, Irons, Myers and Matsuyama. McLachlan merely describes a printer having memory. However, McLachlan does not suggest searching for a presentation object referenced by a selected indicia in a print data stream and capturing the object based upon whether the selected indicia includes a globally unique identifier.

Accordingly, Appellant's invention is patentable over Herriot, Irons, Myers and Matsuyama, alone or in combination.
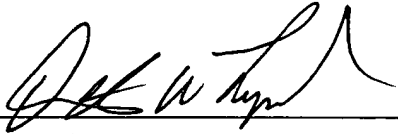
Accordingly, Applicants respectfully submit that independent claim 50 is patentable over the cited references. Moreover, dependent claims 51-66 include all of the limitations of independent claim 50, and are therefore patentable for the same reasons.

VIII. Conclusion

In view of the above, Appellants submit that the rejections are improper, the claimed invention is patentable, and that the rejections of claims 1-18 and 44-68 should be reversed. Appellants respectfully request reversal of the rejections as applied to the appealed claims and allowance of the entire application.

Respectfully submitted,

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APPENDIX OF APPEALED CLAIMS FOR APPLICATION NO. 09/490,772

1   1.   (Currently Amended) A method for enabling re-use of presentation objects by

2   a printing system, comprising:

3   identifying an object in a print data stream for presentation by the a printing system,

4   and

5   generating at the printing system a globally-unique identifier for assignment to the

6   object.

1   2.   (Original)   The method of claim 1 wherein the globally-unique identifier

2   assigned to the object allows the object to be securely and correctly referenced for re-use.

1   3.   (Original)   The method of claim 1 wherein the globally-unique identifier

2   assigned to the object is platform-independent.

1   4.   (Original)   The method of claim 1 wherein the globally-unique identifier is

2   based upon an International Standards Organization administered global naming tree.

1   5.   (Original)   The method of claim 1 wherein the globally-unique identifier is

2   contained in a syntax structure of a data stream.

1   6.   (Original)   The method of claim 5 wherein the data stream is a Mixed

2   Object Document Content Architecture data stream.

1   7.   (Original)   The method of claim 1 wherein the assigning a globally-unique

2   identifier further comprises:

3   requesting, in an International Standards Organization administered global naming

4   tree, a first node for an application that uses the object;

5   registering, under the first node, a second node for each license of the application; and

6   assigning a globally-unique identifier for the object, the globally-unique identifier

7   including an indication of the object, the first node and the second node.

1   8.   (Original)   The method of claim 1 wherein the assigning a globally-unique

2   identifier further comprises generating a globally-unique identifier for an object, the

3   generated globally-unique identifier includes an indication of a first node representing an

4   application that uses the object, of a second node for each license of the application and of

5   the object.

1   9.   (Original)   The method of claim 8 wherein the indication of the object

2   includes a time stamp.

1   10.   (Original)   The method of claim 9 wherein the time stamp includes an

2   indication of the date and time.

1   11.   (Original)   The method of claim 8 wherein the indication of the object

2   includes a checksum value.

1   12.   (Original)   The method of claim 8 wherein the indication of the object

2   includes a binary counter.

1   13.   (Previously Presented)   A method for managing presentation objects for

2   multiple use, comprising:

3   downloading to a printer a presentation object identified in a print data stream;

4   caching ~~an~~ the presentation object in a cache of the printer when the presentation

5   object is downloaded; and

6   capturing the presentation object in memory of the printer if a globally-unique

7   identifier has been assigned to the presentation object.

1   14.   (Original)   The method of claim 13 wherein the memory comprises

·2   permanent storage.

1   15.   (Original)   The method of claim 13 further comprising deleting previously

2   captured objects to increase available capture storage area in the memory.

1   16.   (Original)   The method of claim 15 wherein the deleting comprises

2   deleting non-active, least-recently used objects first.

1   17.   (Original)   The method of claim 15 wherein the deleting comprises largest

2   objects first.

1   18.   (Original)   The method of claim 15 wherein the deleting comprises

2   smallest objects first.

1   19-43. (Canceled)

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1   44.   (Previously Presented)   A system for managing presentation objects for

2   multiple use, comprising:

3   a printer cache for caching a presentation object identified in a print data stream when

4   downloaded; and

5   printer capture storage for capturing the presentation object if a globally-unique

6   identifier has been assigned to the presentation object.

1   45.   (Original)   The system of claim 44 further comprising a print server, the

2   print server deleting previously captured objects in the printer capture storage.

1   46.   (Original)   The system of claim 44 further comprising a print server, the

2   print server deleting previously downloaded or active objects.

1   47.   (Currently Amended) The system of claim 46 wherein the previously

2   downloaded or active objects exist in the capture storage or cache storage.

1   48.   (Currently Amended) The system of claim 46 further comprising a printer

2   control unit for marking deleted objects in the capture storage as removable.

1   49.   (Currently Amended) The system of claim 48 wherein a removable object is

2   deleted when a capture request is received to make storage available to capture a new

3   resource.

1   50.   (Previously Presented)   A system for processing referenced objects,

2   comprising:

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3   a print server for searching for a presentation object referenced by a selected indicia

4   in a print data stream, the selected indicia being a name, a globally-unique identifier or a

5   globally-unique identifier and an object locator; and

6   a control unit for capturing the presentation object in persistent memory;

7   wherein the control unit determines if the presentation object is to be captured based

8   upon whether the selected indicia includes a globally-unique identifier.

1   51.   (Original)   The system of claim 50 wherein the data stream references the

2   object by an object name and the print server searches for the object by object name.

1   52.   (Original)   The system of claim 51 wherein the print server attempts to

2   find the object resident in a presentation device when the object is referenced with a globally-

3   unique identifier.

1   53.   (Original)   The system of claim 52 wherein the print server downloads the

2   object and the control unit captures the object when the attempt to find the resident object

3   fails and the object is referenced from a secure environment.

1   54.   (Original)   The system of claim 50 wherein the control unit references the

2   object by a globally-unique identifier.

1   55.   (Original)   The system of claim 54 wherein the print server attempts to

2   find the object resident in the presentation device using a globally-unique identifier.

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1   56.   (Original)   The system of claim 55 wherein the print server searches for

2   the resource inline when the search for a resident globally-unique identifier fails.

1   57.   (Original)   The system of claim 56 wherein the print server downloads the

2   object and the control unit captures the object by the globally-unique identifier if the resource

3   is found inline and the object is secure.

1   58.   (Original)   The system of claim 50 wherein the data stream references the

2   object by a globally-unique identifier and an object locator.

1   59.   (Original)   The system of claim 58 wherein the print server attempts to

2   find the object by searching for a resident globally-unique identifier.

1   60.   (Original)   The system of claim 59 wherein the print server searches for

2   the resource inline when the search for a resident globally-unique identifier fails.

1   61.   (Original)   The system of claim 60 wherein the print server downloads and

2   the control unit captures the object by the globally-unique identifier if the resource is found

3   inline and the object is secure.

1   62.   (Original)   The system of claim 60 wherein the print server looks for the

2   object by object locator in a resource library when the inline search is unsuccessful.

1   63.   (Original)   The system of claim 62 wherein the print server determines

2   whether the globally-unique identifier assigned to the object matches the globally-unique

3   identifier referenced.

1   64.   (Original)   The system of claim 63 wherein the print server downloads the

2   object and the control unit captures the object by the globally-unique identifier if the

3   globally-unique identifier assigned to the object matches the globally-unique identifier

4   referenced.

1   65.   (Original)   The system of claim 63 wherein the print server provides an

2   indication of an error if the globally-unique identifier assigned to the object does not match

3   the globally-unique identifier referenced.

1   66.   (Original)   The system of claim 63 wherein the print server provides an

2   indication of an error if the object does not contain a globally-unique identifier.

1   67.   (Previously Presented)   An article of manufacture comprising a program

2   storage medium readable by a computer, the medium tangibly embodying one or more

3   programs of instructions executable by the computer to perform a method for managing

4   presentation objects for multiple use, the method comprising:

5   downloading to a printer a presentation object identified in a print data stream;

6   caching the presentation object in a cache of the printer when the presentation object

7   is downloaded; and

8   capturing the presentation object in memory of the printer if a globally-unique

9   identifier has been assigned to the presentation object.

1   68.   (Original)   The article of manufacture of claim 67 further comprising

2   deleting previously captured objects to increase available capture memory.

1   69.   (Canceled)

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APPENDIX OF EVIDENCE FOR APPLICATION NO. 09/490,772

Appellants are unaware of any evidence submitted in this application pursuant to 37 C.F.R. §§ 1.130, 1.131, and 1.132.

APPENDIX OF RELATED PROCEEDINGS FOR APPLICATION NO. 09/490,772

As stated in Section II above, Appellants are unaware of any related appeals, interferences or judicial proceedings.